EMAIL EXCHANGE ABOUT NANOTHERMITE IN 911 DUST

From: **Niels Harrit** <>
Date: Thu, Dec 23, 2010 at 1:56 PM
Subject: Re: Reg aluminum signal from background in EDS spectra
To: Denis Rancourt < >
Cc: "Griscom, David" <>, Steve Jones <>, "Dr. M. Elmasry" <>, John McMurtry <>, John Duddy <>, STS <splitting_the_sky>, Noel Glynn <>, Carol Brouillet <>, Jason <understandingdeeppolitics.org>, Adnan Zuberi <>, Heidi Rimke <>, Jacques Marcille <>, Barry Zwicker <>, Michel Chossudovsky <>, Michael Pengue <>, Patrick Biron <>, Charlotte Dennett <>, Frances Shure <>, Paul McArthur <>, Jeremy Rothe-Kushel <>, Kevin Barrett <>, Anthony Hall <>, Graeme MacQueen <>

Dr. Rancourt,

Enough. It ends here.

You are about the last person I would consider sending preliminary data. The TEM study will be continued, finished and published when - or if - time and money permit.

The Bentham paper is to be discussed on the basis of the Bentham data – a principle which also was the basis for your attack on Dr. Griscom.

Neither do we need additional information, since you fail to recognize, that cumulative arguments are not mutually exclusive.

Apparently, you did not receive my third mail yesterday.

But I was serious, so I repeat:

Any further response from me is conditioned by your ability to clarify and provide a coherent account of your alternative ”rust-only” theory for the appearance of the red/grey chips in the WTC dust.

Your model must account for all observations - e.g. in particular:

1) **Exactly which phase transition between which iron oxide minerals can produce enthalpy changes comparable to those observed for reaction of the red/grey chips by DSC? Please, provide full literature reference. Such spectacular phenomena – incl. light emission - must also be readily observable whenever you heat a rusted piece of iron.**

2) Explain how this phase transition can produce elemental iron in the shape of spheres. References, please.
3) The red layer swells enormously when soaked in methyl ethyl ketone. Will you expect rust to do that? References, please. The grey layer – an iron oxide – did not swell.

PS: Furthermore, if you also can come up with a quantitative, coherent account for the gravity-only collapse model you advocate for the WTC towers, I'm sure NIST will repay you with a double-digit million reward.

Take your time.
But don't take mine.

NH

----- Original Message -----
From: Denis Rancourt
To: Niels Harrit
Cc: Griscom, David ; Steve Jones ; Dr. M. Elmasry ; John McMurtry ; John Duddy ; STS ; Noel Glynn ; Carol Brouillet ; Jason ; Adnan Zuberi ; Heidi Rimke ; Jacques Marcille ; Barry Zwicker ; Michel Chossudovsky ; Michael Pengue ; Patrick Biron ; Charlotte Dennett ; Frances Shure ; Paul McArthur ; Jeremy Rothe-Kushel ; Kevin Barrett ; Anthony Hall ; Graeme MacQueen
Sent: Thursday, December 23, 2010 3:00 AM
Subject: Re: Reg aluminum signal from background in EDS spectra

Niels,

One would not cover the entire surface and exposed sides of the Al holder with carbon tape.
One would typically cut a small piece (usually a square or rectangular piece cut from the tape roll with scissors) and put the powder sample on that small piece of carbon tape.
Who did the actual sample prep for the SEM?

Are you claiming that your Al-rich flake edges are real (Fig.15)? Ahum...

Are you stating that for all your samples you covered the entire Al holder with carbon tape? The whole idea of a sample holder is to make handling the sample easy...

(If your carbon tape was used as a demonstrably effective shield then why rely on your Al-Mg alloy argument?)

It just seems that you keep inventing tenuous excuses why you don't have Al X-ray contamination while all I do is keep repeating that it is an obvious problem known to all SEM-EDX workers and that you never should have done the measurements on an Al holder if you wanted to show Al in the sample. Yes, it's by far the easiest thing to do but it's the wrong method for the question at hand.

Just show your clean TEM-EDX data and let's move on.

-denis

On Wed, Dec 22, 2010 at 7:05 PM, Niels Harrit < > wrote:
Gosh!
The sample was mounted on a carbon tab in all the spectra showed in the paper. The electrons never hit the scaffold. Did you ever read the whole reply?
NH.

----- Original Message -----
From: Denis Rancourt
To: Niels Harrit
Cc: Graeme MacQueen ; Anthony Hall ; Kevin Barrett ; Jeremy Rothe-Kushel ; Paul McArthur ; Frances Shure ; Charlotte Dennett ; Patrick Biron ; Michael Pengue ; Michel Chossudovsky ; Barry Zwicker ; Jacques Marcille ; Heidi Rimke ; Adnan Zuberi ; Jason ; Carol Brouillet ; Noel Glynn ; STS ; John Duddy ; John McMurtry ; Dr. M. Elmasry ; Steve Jones ; Griscom, David
Sent: Thursday, December 23, 2010 12:39 AM
Subject: Re: Reg aluminum signal from background in EDS spectra

Dear Niels,

Figures 6 and 7 are not a proof, as you assert.
(If they were a proof you would not need to argue about your Al-Mg alloy or about how you have clean TEM-EDX data that you do not show.)

Let me explain the error you are making in advancing that Figures 6 and 7 prove your point.

It's like this. The electron hits the sample at the desired location but if the electrons do not both enter the sample and stay in the sample and if instead they emerge to hit the surrounding Al support then you will get an Al X-ray signal giving a false elemental Al reading.

This artifact is very well known. It is the single greatest artifact in SEM-EDX work. It is why SEM workers most often make a polished flat surface for analysis (for example by first encasing the sample flakes in a suitable matrix that is then cut and polished. Otherwise, the irregular surface and sample edges cause secondary and back scattered and emerging electrons to fly in all directions and hit unwanted parts of the sample and the exposed regions of the Al holder.

This is the most basic of considerations in doing SEM-EDX work: (1) You don't use Al holder-materials if you want to analyze Al. (2) You make a flat polished surface to avoid electron misbehaviour artifacts and to allow semi-quantitative rather than only-qualitative elemental measurements.

In your case, the gray layer is dense and compact whereas the red layer is clearly not

dense and compact by comparison. In addition, the red layer also has a far more irregular outer surface. The red layer material is the worst possible situation to get out-scattered electrons.

I propose that this is why you see Al X-ray counts from the red layer and not from the gray layer. (And you should have shown the electron beam spots on a sample image corresponding to the EDX spectra of figures 6 and 7, as is the norm in such work.)

Indeed, exactly these artifacts are seen in your figure 15. You see the strongest Al signals (Figure 15(c)) on the edges of the red flake where electrons escape to strike an unexposed part of the Al sample holder. This edge amplification is an artifact not related to actual sample composition.

If the analyzed element were actually present in the sample then it should have a LOWER count on sample edges because the electron energy deposition volume is smaller on edges.

Your carbon has a similar behaviour (Figure 15(f)) because of your use of carbon tape.

Why not just show your clean TEM-EDX data (using a copper grid support) to resolve this issue so we can move to point-2?

So you see, point-1 is not resolved.

We await your EDX spectra of your unusual Al-Mg alloy holder and the clean TEM-EDX data to move on.

Respectfully,
-denis

On Wed, Dec 22, 2010 at 8:58 AM, Niels Harrit < > wrote:

This is the first of three consecutive emails.

Dr. Rancourt,

Due to Christmas rush and travelling, I will not have access to the old background files before after the holidays. So you must wait for the requested spectrum of the scaffold. At that time, we may also provide a measurement showing, that the electron beam doesn't even penetrate the carbon conductive tab!

Luckily, we don't have to wait in order to settle the issue of the aluminum signal. The documentation is right in front of your eyes.

You ignored the other information I provided, e.g. that an aluminum signal was only observed when the electron beam hit the red layer.

Now, how does one demonstrate, that a signal is NOT there when you target analyte (aluminum) is absent? In other experimental situations one can add an INTERNAL STANDARD – a substance mixed into the sample which provide an intrinsic, corrected signal that can be used for calibration.

In the present study, an internal standard was at hand in micrometer distance from the red layer: THE GREY LAYER.

If you care to consider Figs. 6 and 7 of the paper, each shows EDS spectra from the four dust samples investigated in the study. Fig. 6 shows spectra from the grey layers in chips from the four samples. Fig. 7 shows the spectra from the corresponding red layers.

Imagine that you move the electron beam back and forth between a grey layer and a red layer. The movement could in principle be on a the length scale of microns.

No aluminum in the grey layer (and only traces of carbon – no magnesium). Plenty aluminium in the red layer (and plenty of carbon – no magnesium).

Taken together, Figs. 6 and 7 prove unambiguously, that the aluminum signal is specific for the red layer. No background contribution!

OK?

Niels Harrit

----- Original Message -----
From: Denis Rancourt
To: Niels Harrit
Cc: Graeme MacQueen ; Anthony Hall ; Kevin Barrett ; Jeremy Rothe-Kushel ; Paul McArthur ; Frances Shure ; Charlotte Dennett ; Patrick Biron ; Michael Pengue ; Michel Chossudovsky ; Barry Zwicker ; Jacques Marcille ; Heidi Rimke ; Adnan Zuberi ; Jason ; Carol Brouillet ; Noel Glynn ; STS ; John Duddy ; John McMurtry ; Dr. M. Elmasry ; Steve Jones ; Ryan, Kevin ; Griscom, David
Sent: Sunday, December 19, 2010 4:58 AM
Subject: Re: A new post about the 911 Movement

Dear Niels,

If you don't mind, I would like to have an exchange to clarify your replies to my concerns about your paper.

We can do one point at a time. (And I can see that each point does need clarification.)

Let's start with just the first point, about the Al slugs.

I have never heard of a materials scientist using Al slugs as a sample holder if you want to analyze for Al. Nonetheless, let us explore your answer, which was absent from your

paper or any appendix or supplementary material to your paper.

You claim that the slug was not Al but rather an "Al-Mg alloy". There is always Mg impurity in stock Al but I would not call that an "Al-Mg alloy". Stock Al commonly has impurities of Mg and Fe and other metals. So please:

What was roughly the Al:Mg ratio in your "alloy"?
How uniform was this ratio on different parts of the slug?
Please show typical EDX spectra for the slug.

This is of course important because, as you can see in your own EDX spectra in the paper, THERE ARE Mg peaks where you see Al, in a typical ratio for an Mg impurity in stock Al...

It seems the argument you are trying to use actually helps to confirm my point that the Al signal is coming from the Al slug.

And of course you were not measuring Mg so you may not have collected with good enough statistics (signal to noise) to detect it every time.

Also, you DO NOT mention or show EDX spectra from TEM measurements using a copper grid holder in the paper, as you now seem to imply. Again, there was no mention of this in the paper. Why didn't you report your clean TEM EDX spectra in the paper rather than work with this contaminated data? Please send me an EDX of the red layer obtained by TEM !

If you did TEM then why did you not do electron diffraction (ED) to prove metallic Al or for solid phase identification? That would have been obvious.

Since you chose to use Al slugs for a sample where you wanted to analyze for Al, you have the burden of the proof to show that the Al signal from the slug is absent and not dominant. So I await an EDX of the slug you used.

Just sticking to the first point for now.
After we finish with the first point, we can move to the second.

-denis

On Sat, Dec 18, 2010 at 8:46 PM, Niels Harrit <> wrote:

> Dr. Rancourt
>
> > Thank you for your interest in our publication, and the effort you have made to formulate the questions as they appear in
>
> http://climateguy.blogspot.com/2010/11/peer-review-of-harrit-et-al-on-911-cant.html
>
> Our answers follow below. Your questions are highlighted in green.

Yours sincerely

Niels Harrit

QUESTION: The Al slugs would give inhomogeneous background Al signals in the EDXA spectra. This was not considered or discussed in the paper. There could be no or little Al in the red-layer.

ANSWER:

When doing a scientific, instrumental investigation, there always is a great number of control experiments, which are implicit to every serious worker in the field. It is understood by the experienced reader, that these tests have been done, since you cannot put every basic control test image or report every bit of supporting data in a journal article. The articles would be so enormous that no one would bother reading them and no journal would possibly care to print them. There are some things that are implied.

Thus, numerous background studies were carried out which were not reported in the red/grey chips paper. Among them, we performed a background study where the SEM beam hit the pedestal directly. We found that the pedestal was not pure aluminum (as you somehow(?) anticipate), but rather an Al-Mg alloy.

Therefore, if we were picking up aluminum signal from the pedestal then we also would have seen Mg.

We did not.

The TEM studies also confirm the presence of aluminum in the red material (in the platelets), and those samples were mounted on a copper holder.

The spread of the electron beam inside the samples was tested and Monte Carlo simulations were performed to get an idea of the interaction volume of the electron beam within the sample. There was NO aluminum signal when the beam was not on the red layer.

To suggest that there is no aluminum in the red layer is ludicrous.

- QUESTION: The carbon adhesive tape will give inhomogeneous background C signals in the EDXA spectra. This was not considered or discussed in the paper. There could be no or little C in the red-layer.

  ANSWER: Referring to the previous answer, it stands to reason that we acquired control spectra of the carbon tape on the Al stub, as well as on samples NOT mounted to carbon tape.

  True, there seems to be carbon everywhere, which is exactly why some spectra were acquired from samples that were NOT mounted

to carbon tape to ensure that the C was from the sample and not spurious X-rays from the carbon tape. In fact, one sample was mounted so that the X-ray signal could only possibly originate from within the red layer, and the measurement verified that there is carbon in the red layer.

The amount of carbon in the red layer had not been accurately determined at the time of writing and therefore we only reported qualitatively the presence of the C in the red layer.

Independently, the observation that the red layer swells in methyl ethyl ketone is an unambiguous proof that an organic matrix is present!

QUESTION: There is as much or more Si (silicon) in the EDXA results than Al in all the red-layer results and Si and Al are closely correlated in their spatial distributions (e.g., their Figure 10). No probable explanation is given for this. This is not consistent with the presence of metallic Al.

- ANSWER: Fig. 10 shows the elemental mapping BEFORE soaking the chip in methyl ethyl ketone. Please, compare with Fig. 15.

- QUESTION: Oxygen (O) is more closely spatially correlated with Al and Si than with Fe (e.g., their Figure 10). No probable explanation is given for this. This contradicts the conclusion of the presence of metallic Al.
- ANSWER: Fig. 10 shows the elemental mapping BEFORE soaking the chip in methyl ethyl ketone. Please, compare with Fig. 15.
- QUESTION: No effort was made to estimate the Fe:Al elemental ratio in the red-layer. Synthetic thermite or nanothermite would have a ratio of 1:1. The point is never discussed.

  ANSWER: This ratio is not decisive. According to stoichiometry it should be 1:1. However, in real life there is always more aluminum. One reason is, that every aluminum item exposed to the atmosphere is covered by aluminum oxide. The relative fraction of Al2O3 increases as particles get smaller as a simple mathematical consequence.

  Wonder where Dr. Rancourt got this information on nanothermite? Please provide a reference next time.

  And what on earth is “synthetic thermite”?

  In contrast, from the recipe provided in ref. 25 in our paper, one can derive an Fe/Al ratio of 0.17. But be sure that Lawrence Livermore National Laboratory would never publish a preparation of “the real stuff”.

QUESTION: The exothermic peak in the DSC traces occurs at a temperature (420 C) approximately 90 C below the temperature for the thermite reaction. No explanation is proposed for this. Chemical activation energies of known reactions cannot be so sample dependent, whether nano-sized or not. This is not the thermite reaction.

ANSWER: We do not claim that the red/grey chips are the same material as Tillotson et al. described. Actually, we are pretty sure it is NOT for the same - for reasons given above.

Your statement about activation energies is nonsense. An activation energy is a thermodynamic quantity referring to standard conditions in solution or in the gas phase. That some people take this lightly is another matter. But to postulate a unique correlation between ignition temperature and activation energy in a two-phase solid reaction is ridiculous. Well, maybe you can expect a lower ignition temperature the smaller the particles – as observed.

Of course, all samples have a different ignition temperature (Fig. 19), and of course, different preparations with different compositions will have different ignition temperatures.

And what do you mean by "the temperature for the thermite reaction"? You are going to have a very hard time if you try to search the literature for a well-defined ignition temperature of conventional thermite mixtures. Please, provide a reference next time you come up with such a statement.

Furthermore, in the paper we hypothesize that the organic matrix (plus atmospheric oxygen) is decisive for the low ignition temperature and the overall energy output.

- QUESTION: In the reacted product (after heating in DSC), no Al-oxide is observed as a residue, as required by the thermite reaction. No explanation is given for this.

  ANSWER: Obviously, you have never done the experiment. In a conventional thermite reaction, you can observe the aluminum oxide as a white dust cloud (plume) leaving the reaction site. And if you care to watch the videos of the collapse of the WTC towers, you may also observe, that the rocket-projectile fragments, which were ejected up-and-out from the towers, drew white smoke-trails after them. Gypsum from wallboard CANNOT account for this. Take a look!

- QUESTION: The obvious needed measurement of X-ray diffraction was not used to confirm the solid mineral species (oxides or metals). This is

unacceptable in a materials chemistry paper. This is not considered by the authors.

ANSWER: X-ray diffraction studies on samples as small as these are very far from being a trivial matter. We did not have access to specialized X-ray sources (like synchrotrons) for this study.

- ALTERNATIVE HYPOTHESIS: Much is made of the fact that Fe-rich spheroids are present after reaction but there is no discussion of the grey-layer or of the origin of the Si-rich spheroids. Heating causes many things and there is an exothermic reaction so the conclusions about the presence of Fe-rich spheroids (which are reported to contain oxygen) as evidence for the thermite reaction is tenuous.

  ANSWER: A scientific paper is a set of data and the best hypothesis rationalizing the observations. Fe-rich spheroids are observed after a thermite reaction. Fe-rich spheroids have never been observed unless there was a thermite reaction.

  "Tenuous"?

ALTERNATIVE HYPOTHESIS: Here is an alternative explanation for the observations reported by Harrit et al.

Steel rusts. Rust crusts crack and blow off the steel when physically disrupted.

Rusting steel is one of the most studied materials science problems in engineering.

When steel rusts in a humid building environment it grows a crust composed of layers of different Fe-oxides and Fe-oxyhydroxides. These are stratified micro-layers with successive layers of different Fe-oxides species (wustite, maghemite, hematite, etc.). In a humid atmosphere the outer layers will be Fe-oxyhydroxides such as goethite, lepidocrocite and akaganeite. The latter three Fe-oxyhydroxides have the same chemical formula: FeOOH, and differ only in their crystal structures.

These Fe-oxyhydroxides typically form as nanoparticles and have the same needle and nanoflake-like morphologies as observed here.

When these Fe-oxyhydroxides are heated in a DSC they undergo a solid to solid exothermic reaction of dehydroxilation (loss of OH) and transform from FeOOH to Fe2O3 (hematite) at a temperature of approximately 400 C. The temperature of the transformation can vary depending on exact chemical composition, and on the crystal structure, but it is always at approximately 400 C.

Looks like our boys may have been discovering the properties of rusted steel. Steel contains C and Si which would end up in its oxidation products, especially in the oxyhydroxides.

ANSWER:

Sensational.

According to your suggestion, when you heat rust, elemental iron is formed.

I look forward to the publication of this hypothesis in – say - Journal of Inorganic Chemistry (an ACS publication). If supported by observation(!) - be sure it will be accepted promptly and be widely recognized.

Next time you present this hypothesis, the least you can do is to provide it with proper references and observations.

Yours sincerely

Niels Harrit

----- Original Message -----
From: Denis Rancourt
To: Niels Harrit
Cc: Ryan, Kevin ; Steve Jones ; Dr. M. Elmasry ; John McMurtry ; John Duddy ; STS ; Noel Glynn ; Carol Brouillet ; Jason ; Adnan Zuberi ; Heidi Rimke ; Jacques Marcille ; Barry Zwicker ; Michel Chossudovsky ; Michael Pengue ; Patrick Biron ; Charlotte Dennett ; Frances Shure ; Paul McArthur ; Jeremy Rothe-Kushel ; Kevin Barrett ; Anthony Hall ; Graeme MacQueen
Sent: Sunday, November 21, 2010 7:35 PM
Subject: Re: A new post about the 911 Movement

Thank you Niels.
Please make your response suitable for public posting.

I hope you will include the solid-phase-identification **diffraction** measurements that I have suggested and that are essential in establishing the presence of a solid species such as crystalline metallic aluminum.

I am pleased that you no longer consider this a "waste of time".

-denis

On Sun, Nov 21, 2010 at 12:29 PM, Niels Harrit <> wrote:
Denis,
I still intend to respond to your criticism of our paper.
But I just haven't had the time yet.
It may be early December.
Niels

----- Original Message -----
From: Niels Harrit
To: Denis Rancourt

Cc: Graeme MacQueen ; Anthony Hall ; Kevin Barrett ; Jeremy Rothe-Kushel ; Paul McArthur ; Frances Shure ; Charlotte Dennett ; Patrick Biron ; Michael Pengue ; Michel Chossudovsky ; Barry Zwicker ; Jacques Marcille ; Heidi Rimke ; Adnan Zuberi ; Jason ; Carol Brouillet ; Noel Glynn ; STS ; John Duddy ; John McMurtry ; Dr. M. Elmasry ; Steve Jones ; Ryan, Kevin
Sent: Tuesday, November 16, 2010 12:44 AM
Subject: Re: A new post about the 911 Movement

Denis,

Of course I did.

But I found no reason to relate to some irrelevant opinions from some irrelevant person expressed in privat correspondence with you.

Instead I offered my comments about Madame Pileni, who was editor-in-chief at the time of our publication, so you might understand why the course of events is a positive review of our work.

I couldn't care less whether you get this point or not.

Regarding your "scientific" comments: I may get down to them.

But after having experienced your antics and foul play - plus your difficulties with Newtonian Physics and energy balance considerations, your request has dropped a bit down on my list of priorities.

Niels

----- Original Message -----
From: Denis Rancourt
To: Niels Harrit
Cc: Graeme MacQueen ; Anthony Hall ; Kevin Barrett ; Jeremy Rothe-Kushel ; Paul McArthur ; Frances Shure ; Charlotte Dennett ; Patrick Biron ; Michael Pengue ; Michel Chossudovsky ; Barry Zwicker ; Jacques Marcille ; Heidi Rimke ; Adnan Zuberi ; Jason ; Carol Brouillet ; Noel Glynn ; STS ; John Duddy ; John McMurtry ; Dr. M. Elmasry ; Steve Jones ; Ryan, Kevin
Sent: Sunday, November 14, 2010 9:34 PM
Subject: Re: A new post about the 911 Movement

Hi Niels,

It appears you did not read the actual article:
http://activistteacher.blogspot.com/2010/11/editor-in-chief-resigned-over-harrit-et.html

This is the **SECOND** editor in chief to resign over your article.
This one is a man (the first was a woman) and his name is Professor Lucio Frydman.
In his Nov.11th letter of response to me (posted) he states that "in no way" does he agree with the conclusions of your paper.

I have put forth clear scientific criticism of the methods, data, and interpretations in your "peer reviewed" paper.
I have also proposed a simple explanation of your false results.
Again, here it is:
http://climateguy.blogspot.com/2010/11/peer-review-of-harrit-et-al-on-911-cant.html

From my perspective, it is you who has wasted resources. But now this mess must be cleared up.
Why not therefore answer my criticisms of your paper (the bullets in my post)?

-denis

On Fri, Nov 12, 2010 at 7:20 PM, Niels Harrit <> wrote:

Denis,

You are setting up a scheme for deliberate, systematic waste of my time ("..and so on..").

This is not gonna happen, since I have no time to waste.

Same thing with your comments to our paper. Don't wait for our response.

If you believe that you have an alternative hypothesis accounting for ALL the observations,

we suggest that you publish it, preferentially in a peer-reviewed journal.

Like we did.

The review process was only special in that one of the reviewers requested several, supplemetary control experiments.

Overall, the process took three months.

My comments to the editor-in-chief's resignation can be seen here:

http://www.911blogger.com/node/20614

Her background:

http://www.911blogger.com/node/19963

You requested my publication list. I attach the latest version.

Since you also asked what I was doing these days, I have added two titles "in preparation".

You write on your blog:

"What is most unfortunate is that many Truthers will now spend much energy refuting my proposal."

Right! That would be unfortunate.

Fortunately, I won't.

Niels

----- Original Message -----
From: Denis Rancourt
To: Niels Harrit
Cc: Graeme MacQueen ; Anthony Hall ; Kevin Barrett ; Jeremy Rothe-Kushel ; Paul McArthur ; Frances Shure ; Charlotte Dennett ; Patrick Biron ; Michael Pengue ; Michel Chossudovsky ; Barry Zwicker ; Jacques Marcille ; Heidi Rimke ; Adnan Zuberi ; Jason ; Carol Brouillet ; Noel Glynn ; STS ; John Duddy ; John McMurtry ; Dr. M. Elmasry ; Steve Jones ; Ryan, Kevin
Sent: Friday, November 12, 2010 2:32 AM
Subject: Re: A new post about the 911 Movement

Hi Niels.

Thank you for your patient explanations.

I suggest the following.

Accept that we post your arguments and number each point.
Then I can post my point by point reply, and I will number each point of my reply.
Then you can respond to my reply and so on, all public on the web.

This way all our peers and others can review our exchange and decide for themselves.

Your first entry could be the lead post on my blog and the rest would go as comments to this post. Your entries can be sent in cc to those on this list for verification.

Would that be a good way to proceed?

Also, could you give some details about how your article on nanothermite was peer reviewed by the journal? This matter has been put in some question:
http://activistteacher.blogspot.com/2010/11/editor-in-chief-resigned-over-harrit-et.html

-denis

On Thu, Nov 11, 2010 at 7:11 PM, Niels Harrit <> wrote:

> **Ok, Denis, let's take it again from the top – for the third time - really slow.**
>
> **Newtons second law states that the force equals mass times acceleration:**

F = m x a
OK?

If a body is released without support it goes into free fall, which means that ALL the potential energy is converted into kinetic energy as it accelerates.
OK?

If a body lies on a table, the force it exerts on the surface will be counteracted by an equal force in the opposite direction from the table.
This is Newton 3rd.
OK?

The body does not move.

Unless, if the body is too heavy, the table breaks. The body does some work, which can be calculated as force times distance:
W = F x l
OK?

Once the work is done, and the body has moved closer to the earth, it continues in free fall with whatever is left of its potential energy after it has destroyed the table.
OK?

You claim that the towers collapsed due to gravity. Your condition – that some central elements should be damaged - is irrelevant to this energy balance (vide infra).

The potential energy of one tower was roughly 4 x 10^11 Joule according to FEMA. Your equivalent of 100 tons TNT is less.

Observation:
The top of WTC1 came down – with sudden(!) onset – and with constant (!) acceleration equal 2/3 (two thirds) of free fall. You agreed to this number (courtesy David Chandler) in our radio debate (triumphant: ”It is much less that free fall”).

In that moment, you lost two thirds of your argument.

A downward acceleration of 2/3 G means, that the interaction (Newton 3rd) with the support in only 1/3 of its static weight.
OK?

So, for all the damage which you assign to the potential energy is only left:
1/3 x 4 x 10^11 Joule = 36300 kWh (kWh is a unit easier to embrace for most).

You cannot use the same potential energy to accelerate the top section and to crush the rest of the building. Energy can only be spent once.

The japanese physicist Reijo Yli-Karjanmaa has estimated, that the energy needed for crushing the concrete in one tower and expanding the dust cloud is 245.000 kWh.
http://www.saunalahti.fi/wtc2001/energia3.htm

In my opinion, his estimate of the concrete content is too high. So let us say 200.000 kWh to crush the concrete and expand the cloud.

Now your energy balance is IN THE RED (deficit) by 164.000 kWh.

And you haven't yet broken one single steal beam joint, you haven't twisted a single beam, you haven't cut one single beam.

There were 80.000 – 90.000 tons of stuctural steel in one tower and in your proposed collapse mechanism there simply isn't headroom for doing the job.

End of story – your story.

Maybe you have been blinded by the fact, that 4 x 10^11 Joule does indeed correspond to 100 tons TNT.

True. But that ain't very much energy. Explosives are not particularly rich in chemical energy. Burning coal in oxygen developes much more heat.

But explosives are FAST, and if you come by one day for a little chemistry course, I will explain to you why that is.

If all the potential energy of the towers ended up as heat in the rubble – as it would if the collapse were driven only by gravity as you propose – the temperature rise would have been only 2-3 degr. centigrade.

So, if you are looking for another challenge, you then try to explain the well documented occurence of molten iron in the rubble and the thermal mapping by NASA. Not to mention the crazy emissions of

unexpected chemicals as they have been documented by Kevin Ryan et al. http://www.springerlink.com/content/f67q6272583h86n4/

In our debate, you even claimed that the potential energy could be concentrated in ”hot spots” in the building. This is totally rubbish, in violation with fundamental principles of thermodynamics.

But you seem to ignore these kind of obstacles.
I wish, I could do the same.

Sorry, but we have Newton and the other old guys on our team.
And Sir Isaac has never lost a game.

N-I-E-L-S HARRIT

----- Original Message -----
From: Graeme MacQueen
To: 'Denis Rancourt' ; 'Anthony Hall' ; 'Kevin Barrett' ; 'Jeremy Rothe-Kushel' ; 'Paul McArthur' ; 'Frances Shure' ; 'Charlotte Dennett' ; 'Patrick Biron' ; 'Michael Pengue' ; 'Michel Chossudovsky' ; 'Barry Zwicker' ; 'Jacques Marcille' ; 'Heidi Rimke' ; 'Adnan Zuberi' ; 'Jason' ; 'Carol Brouillet' ; 'Noel Glynn' ; 'STS' ; 'John Duddy' ; 'John McMurtry' ; 'Dr. M. Elmasry' ; 'Niels Harrit'
Sent: Thursday, November 11, 2010 10:17 PM
Subject: RE: A new post about the 911 Movement

Dear Denis:

Thanks for forwarding this piece. These issues have been discussed in detail for years and I think we should avoid repeating what others have said. However, despite my reluctance to get involved in another debate I can’t help replying to a couple of your comments.

(1) “And the Movement needs to stop spinning its wheels with extreme theories such as: directed energy weapons, all the video is fake and there were no planes, and the two towers necessarily came down in controlled explosives-assisted demolitions with or without the help of tonnes of nanothermite.”

Comment: I agree that we need to concentrate on theories that are solid, but I disagree that controlled demolition is in the same category as no-planes, directed energy weapons and so on. The CD hypothesis is based on a good deal of evidence, and such evidence continues to accumulate. Adnan has pointed to the fact that the CD in WTC 7 cannot easily be separated from the issue of the Towers’ collapses. The Towers were certainly brought down in a different way that WTC 7 but the evidence that they were deliberately demolished with the help of explosives is plentiful.

(2) “A standing building is a bomb waiting to be ignited (by an earthquake or anything capable of taking out structural elements). The gravitational potential energy that is released when a tall structure collapses is enormous. The higher and more massive the structure, the greater the energy release.

Indeed, this is the basis of controlled demolition in which gravitational energy not explosives does virtually all the destructive work. The explosives are only used to take out key structural elements and gravity does the rest.”

Comment: Well, I have to disagree with your opening statement. A standing building, if it is built well, is not much like a bomb at all. I don’t think the metaphor helps us. A well designed steel-framed skyscraper will not come down easily, and I’m sure we agree that this is one of the reasons controlled demolition is necessary. Yes, the explosives in a standard CD take out structural elements so that gravity can do most of the work, but taking out the structural elements is not a piece of cake: it is planned carefully, especially when it’s important to have a symmetrical collapse. The task of those who think CD was not used on the Towers is to explain how the key structural elements were taken out given that they were attacked neither by the planes nor the fires. By this I mean that even if the planes and fires were successful in critically weakening the structure--and I have seen no convincing evidence of this in thousands of pages of the NIST reports—they weakened this structure only in the area where damage was observed. In the North Tower this was roughly floors 92-98. There is no evidence they caused major damage outside this region; NIST certainly does not claim this. So, even if we accept that this part of the NT was so badly damaged that it began to catastrophically collapse (NIST has not convinced me that this happened), then we still have to explain how we get from this sort of local collapse to the collapse of the whole building. You’ve tried to give us a scenario in which this might happen, but I don’t find it convincing and I don’t find that it meshes with the evidence we’ve got. For example:

(a) We have a building where the top quite suddenly begins to come down on the rest of the building but where this top section accelerates smoothly right through the period when it’s supposedly destroying the powerful, intact structure beneath it. Not possible. Something else has clearly already destroyed the structural resistance of the lower part of the Tower. No explanation of the collapse will work if it doesn’t explain this smooth acceleration.

(b) We have a scenario where eyewitnesses report explosions before and at the beginning of the collapses. Many eyewitnesses clearly say that the explosions were destroying the building; several compare the process they observed to CD. There are over 150 eyewitnesses to explosions. They are, as far as we can tell, normal people in full possession of their senses. Many (most) were firefighters with extensive experience in burning buildings and in burning high-rises. The explosions typically found in fires do not fit the profile: they could not have played a significant role in destroying these buildings nor would firefighters have in this case said that what they observed seemed to be bombs or secondary devices.

We recently got, through a FOIA request, yet another set of eyewitnesses to these explosions:

http://www.youtube.com/watch?v=Q8DRVqSSyb8&feature=related

I lay great stress on eyewitnesses because I believe it is a crucial strategy of authoritarian institutions to dismiss and attempt to de-legitimize normal human beings and their physical senses. ("You did not see what you thought you saw. We are the ones who will tell you what you saw.")

The eyewitness evidence is corroborated by other kinds of evidence: still photos and videos, which show patterns of rapid and forceful ejections down the length of the Towers; and physical evidence. In the last category, quite apart from the nanothermite (I will let Niels deal with that one if he chooses to), there is the evidence of extreme heat. This evidence does not depend on people in the 9/11 truth movement—it has been documented by other researchers—and I have seen no convincing innocent explanation of it to date. It suggests pre-planted agents (incendiaries or explosives) used to bring down the buildings. These different forms of evidence converge in the CD hypothesis.

All the best,

Graeme

From: Denis Rancourt [mailto:]
Sent: Wednesday, November 10, 2010 8:02 PM
To: Anthony Hall; Kevin Barrett; Jeremy Rothe-Kushel; Paul McArthur; Frances Shure; Charlotte Dennett; Patrick Biron; Michael Pengue; Michel Chossudovsky; Barry Zwicker; Jacques Marcille; Heidi Rimke; Graeme MacQueen; Adnan Zuberi; Jason; Carol Brouillet; Noel Glynn; STS; John Duddy; John McMurtry; Dr. M. Elmasry; Niels Harrit
Subject: A new post about the 911 Movement

A new post about the 911 Movement:

http://activistteacher.blogspot.com/2010/11/911-movement-needs-clean-up-and-focus.html

-denis